

## **VERIFICATION OF TRANSLATION**

- I, Ruth Laskowski
- of 1941 Roland Clarke Place Reston, Virginia 20191

declare that I am well acquainted with both the German and English languages, and that the attached is an accurate translation, to the best of my knowledge and ability, of the German language document attached hereto.

I further declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and, further, that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-captioned application or any trademark issued thereon.

Signature Auth Lashowski Date Splenber 6, 2002

7 9 2002 ES	b) Heidenheim  c) The acquisition, administratiand and exploitation of patents and other intellectual property right in particular exercising all right arising from these intellectual property rights of Voith Sulzer Papiertechnik GmbH & Co. Ko and its holding companies as was the performance of all other activities associated therewith.	-	[illegible] a) Company Name b) Head Office c) Objects of the Company	Commercial Register - Dept. B - of the District Court of Heidenheim an der Brenz
	patent GmbH  b) Heidenheim  c) The acquisition, administration and exploitation of patents and other intellectual property rights, in particular exercising all rights arising from these intellectual property rights of Voith Sulzer Papiertechnik GmbH & Co. KG and its holding companies as well as the performance of all other activities associated therewith.	2	me e Company	- Dept. B - of
	<u>50,000.00</u>	ω	Capital Stock or Joint Stock Capital	the District (
	Dr. Hermann Jung, Graduate of Industrial Engineering [Dipl Wirtschaftsingenieur] Heidenheim	4	Board of Directors Unlimited Partners Managing Directors Liquidators	Court of Heidenhe
Power of Attorney in conjunction with a managing director or another authorized signatory: Norbert Unterhamscheidt, born March 4, 1956 in Heidenheim	Commercial power of attorney in conjunction with a managing director or another authorized signatory:  Dr. Volker Linden, Heidenheim  Klaus Reuter, Krefeld  Wolfgang Heinbockel, Ravensburg  Mainrad Schad, Heidenheim  Rolf Beaserer, Heidenheim	5	Commercial Powers of Attorney	1
	Limited Liability Company.  Articles of Association of September 22, 1997  If only one managing director is appointed, he shall be the sole representative of the company. If more than one managing director is appointed, the company shall be represented by two managing directors jointly or by one managing director in conjunction with an authorized signatory.	6	Legal Information	Sheet 1
a) November 22, 1999 [signature]	a) October 20, 1997 [signature] Schalk b) Ges. Vertr. Bl. 11/26, Sdbd. Business Premises: St. Pöltaner Str. 4 89522 Heidenheim	7	a) Date of entry and signature     b) Notes	HRB 1350

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Note: The under	a. Voith Pa c. The acquand exploit intellectual particular efrom these rights of V & Co. KG as well as tother active. The compactions that directly or objects of particular, branch off abroad, ha companies acquire or and conse under unif		a) Company Name b) Head Office c) Objects of the C	al Register - D	-200
Note: The underlined portions have been deleted.	a. Voith Paper Patent GmbH  c. The acquisition, administration, and exploitation of patents and other intellectual property rights, in particular exercising all rights arising from these intellectual property rights of Voith Paper Holding GmbH & Co. KG and its holding companies as well as the performance of all other activities associated therewith. The company has the right to take all actions that seem appropriate for directly or indirectly furthering the objects of the company. In particular, the company can create branch offices domestically and abroad, have interest in other companies domestically or abroad, acquire or establish such companies, and consolidate such companies under unified control, either in whole or in part.	2	a) Company Name b) Head Office c) Objects of the Company	of the I	-300
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	26,000.00 Euros	ω	Capital Stock or Joint Stock Capital	rt of Heidenhe	-500
				im an de	-600
		4	Board of Directors Unlimited Partners Managing Directors Liquidators	r Brenz	-700
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[seal of the District Court of Heidenheim]		5	Commercial Powers of Attorney	Sheet 1, reverse side (Continued on Sheet	-900
tof			fal	erse side	0
This is to certify that section conforms to the Heidenheim / Brenz, Clerk of The Court Office of Clerk of th [signature] [illegible] Official of the Court	By a sharehold 2000 the company have capital has be increased to 2 of Association (Company National Accounts), § Shares), and § Shares), and § Clerk of The			T e	-1000
This is to certify that the above photocopied section conforms to the entries in the register. Heidenheim / Brenz, May 10, 2001 Clerk of The Court Office of Clerk of the District Court [signature] [illegible] Official of the Court	By a shareholders resolution of August 22, 2000 the company name and the objects of the company have been changed, the joint stock capital has been converted to Euros and increased to 26,000.00 Euros, and the Articles of Association have been amended in § 1 (Company Name, Head Office), § 2 (Objects of the Company), § 3 (Joint Stock Capital, Capital Invested), § 9 (Shareholders' Resolutions), § 10 (Fiscal Year, Annual Accounts), § 13 (Collection of Company Shares), and § 14 (Compensation).	6	Legal Information	HR	Certified Copy
[stamp:]  Calculation of costs will follow under separate cover.	a. September 13, 2000 [signature] b. Beschl. Bl. 36/41 Sdbd.	7	a) Date of entry and signature b) Notes	HRB 1350	

AUG. 14. 2002 703-716-1180 3:33PM \_ NO. 7958 ő C. Der Erwerb, die Verwallung b) Haldenheim . 7IIS R c) Der Erworb, die Votwaltung und die Verworlung von Falenten und senstigen gewarblichen Schulzzochlen. A Gebeneting on Amenibration a) Voith Sulzer Peplertechnik d fime sechien, der Voills Paper Frechie aus diesen Schutz-Watunahmung camillehar Voith Paper Patent GmbH len, in sbesondere die gewerblichen Schulznechund die Verwertung von Patertien und sonstigen gungogesellschaften sowle die Uebrnebaung aller somatique dealt in Ingemen Palent Gobb ACT OF SAME STATE OF THE SECONDS Ashesondere die Gehrahme utrechten, der Volth Scher Rechie aus disese KE und daren Batallj. Handelsregister - Abt. B - des Amtsgerichts \$0.000,--Stanonkapital Committee pile! DOCUME 9 1 Dipl.-Wistschafte Dr. Harmann Jung, . Hoidenhail inyenieur, Parabadah hadind Geschichther Geschichthebru Abatcitu 5 Heldsahsim geb. 04.03.1956 sched/ Norbert Unlerhamderen Prokuristen: Prokura zusamman finidanha (e Rolf Bosserer, führer oder einem anmil einem Geschells-Heinrad Schad, **Example 1** Walfgong Hainbackel, Klaus Reuler, Krafeld Prokuts suspends alt Dr. Valker Linden, 5 la I de Chala Holidenholm oinan Gaschiffsführer Prokuriatan: oder einem underen Kaidenhaim on der Grant Professa 300 Ē len) und § 14 (Vergillung) gesindert § 1 (Firme, 67tz), § 2 (Gegensland des Unlamehmens), § 3 மைறை விட்கள் 26.000,00 Euro erhohi und der Gasellschaftsvaring in (Gaschäftsjahr, Jahrosebschluß), § 13 (Einzlehung von Guschäftsanle) (Stemmkepilal, Stemmeinlagen), § 9 (Gesellschafterbeschlüsse), § 10 der Gegenstand des Unternehmens gesindert, des Staramkopital ess Eu-Durch Gesellschafterbaschiuß vom 22. August 2000 ist die Firma und alt einem Prokuristen vertreten. schaftlich ader durch ainen faschäftsführer in Genoinschaft so wird die Gesellschaft durch zwei Geschiftafishter gemein-Gesallschaft allein. Sind mehrere Geschäfterführer bestellt, Gesellachafkawertrag vom 22. Saptomber 1997, Goso Dacheft ait beachrünkter Haftung. Int rur oln Enschäftsführer bestejlt, so vortritt dinner die THINGSAM MANITON ! (roll Fosts a Letting Blass. Blatt 1 . Rochisvashilipinga TRB Þ b) Cog. Verlr. F 3 b) Gemeshungen e) Tapida Elmregues Beschil Bu 36/41 9dbd. 13.09.2000 22 11.1999 89522 Haidenhaim Geschäftaröume: St. Pöltener Str. 20. Oktober 199) and University 11/26 Sond. 7€1k ζ

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**DERWENT-ACC-NO:** 1998-497453

DERWENT-WEEK: 200244

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TITLE: Papermaking machine press section - has structured outer

and inner supports at the flexible mantle on the roller

carrier of the central shoe press roller

INVENTOR: MESCHENMOSER, A; DAHL, H; MIRSBERGER, P

PRIORITY-DATA: 1998DE-1016673 (April 15, 1998), 1998DE-2011048 (April 15, 1998), 1998DE-1027483 (June 19, 1998)

## **PATENT-FAMILY:**

PUB-NO	PUB-DATE	LANGUAGE	PAGES	S MAIN-IPC
DE 29811048 U1 003/02	September 17, 199	8 N/A	049	D21F
US 6406596 B1	June 18, 2002	N/A	000	D21F 003/02
EP 950755 A2	October 20, 1999	G	000	D21F 003/02
DE 19816673 A1	October 21, 1999	N/A	000	D21F
003/02				
DE 19848284 A1 009/20	October 28, 1999	N/A	000	B30B
JP 11323761 A	November 26, 1999	N/A	013	D21F
003/04				
US 6332955 B1	December 25, 2001	N/A	000	D21F
003/04				

INT-CL (IPC): B30B003/00, B30B009/20, D06B015/02, D06B023/02, D06C015/02, D21F003/02, D21F003/04

ABSTRACTED-PUB-NO: DE 29811048U

**BASIC-ABSTRACT:** 

The press roller (20) at a papermaking machine, to apply pressure to a web of

paper or cardboard, has a mantle (40) rotating round a fixed carrier (38), with a mechanism (44, 46) to set the bending action of the roller carrier (38).

Preferably the bending action of the roller carrier (38) is set by the mechanism (44, 46) to compensate at least mostly for the pressures applied in

the roller press gaps (S1, S2). The roller mantle (40) is held at the roller carrier (38) by at least two supports (42), in the peripheral direction, to form inner counter surfaces at the roller press gaps (S1, S2). The compensating mechanism (44, 46) offsets any bending action on the carrier (38)

through the press forces transmitted through the mantle supports (42).

USE - The press roller is at the press section of a papermaking machine, to extract water from the wet web.

ADVANTAGE - The system ensures that the position of the press roller mantle remains stable, under all operating conditions, to give an optimum passage for

the web and/or blanket through the press station.

ABSTRACTED-PUB-NO: US 6332955B

## **EQUIVALENT-ABSTRACTS:**

**NOVELTY - The press section of a machine processing a wet fiber web has a lower** 

shoe press roller (20) and two upper shoe press rollers (22,24) to form two extended press gaps (S1,S2) along the line (L) of web (10) travel. Two blankets pass through the first press gap (S1).

DETAILED DESCRIPTION - The second press gap (S2), in the direction (L) of web

travel, has a single blanket moving through it, with the web (10) between the blanket (18) and the upper press roller (24) at the second press gap (S2). The second press gap (S2) can have two blankets passed through it, and the press

assembly uses a max. of three blankets (14,18,26). The press section has a closed web guide path. One blanket (18) passes through both press gaps (S1,S2), with the web (10), and together round a suction deflection roller (36) between the gaps. The first blanket (14) through the press gaps (S1,S2) also acts as a pick-up blanket, moving with the web (10) on a rising inclined path into the first press gap (S1). The web (10), on leaving the second press gap

(\$2), is deflected round a suction roller (30) to move onwards pref. to a following drying station. On arrival at the second press gap (\$2), the web (10) is passed to a blanket (18) which carries it through, and the web (10) is detached from the blanket (18) at the suction deflection roller (30), while the blanket (18) follows a downward path away from the web. The web (10) can follow a free and unsupported path between the second press gap (\$2) and the

suction deflection roller (30). The flexible shoe press roller mantle has blind drillings and/or ridges at the rollers (20,22,24) forming the press gaps (\$1,\$2). The trailing upper press roller (24) can have a smooth roller mantle, where a single blanket carries the web through the second press gap (\$2). The

water extraction action at least at one press gap (S1,S2) is at least partially through centrifugal forces, where the water is spun out to be caught in a gutter (72,74,76,78) or the like. At least one of the upper press rollers (22,24) is a hollow roller, with internal supports, pref. as a bending compensation roller, and at least one of the upper rollers (22,24) is solid. A blowing tube is at the trailing upper press roller (24), at least over the whole web width. A suction unit (66) is at the second press gap (S2), in the outlet gap between the roller and the web/blanket, to catch water spray and/or

extract water from the web (10) and the lower blanket (18) emerging from the press gap (S2). A suction roller to separate the web is after the second press gap (S2). The shoe press roller (20) has a press mantle guide to give position stability. The press roller (20) has two supports for the roller press mantle at the press gaps (S1,S2), on an inner support carrier, with the press shoes linked to the supports. The support force can be varied, independently for each support. The non-rotating hollow carrier and the inner carrier are in equidistant mountings at their ends. The amount of bend can be adjusted at the

inner carrier of the press roller, to compensate for the forces applied at the two press gaps (S1,S2). The bending action is affected by the use of heat on the inner carrier, or the carrier has slits to give a controlled bending action or it has an inner or outer auxiliary carrier to give a bend through radial clamping using a hydraulic, pneumatic, mechanical, thermal and/or electromagnetic system. The bend at the inner carrier can also be set by a row

of supports between the hollow and inner carriers, across the direction of web

travel. The press mantle is offset from the hollow carrier, as seen on the cross section plane of the roller (20), and it is polygonal at least in sections. The upper press rollers (22,24) each have a support, to press them against the supports of the center press roller (20) at an equal pressure for

the two press gaps (S1,S2), each with separate and independent pressures. On

leaving the second press gap (S2), the blanket (18) is deflected by a pref. swing guide roller (96), and the blanket (14) leaving the first press gap (S1) is deflected by a pref. swing guide roller (97). The upper press rollers (22,24) are powered, where the second roller (24) has a higher drive power than

the leading roller (22), so that the press mantle of the center roller (20) and/or the blanket (18) is under tension between both press gaps (S1,S2). The

draw tension between the two press gaps is controlled to keep it at a constant

level, from the press drive. The entry gap is under suction, between the leading upper press roller (22) and the upper blanket (14) at the first press gap (S1). The roller supports for the press rollers (20,22,24) are locked with positive fit components, which can be released for a blanket and roller change.

At least one heater and pref. a steam blower box (98) is at the suction deflection roller (36) between the two press gaps (\$1,\$2).

USE - The assembly is for the extraction of water from a wet fiber web, at a machine for the prodn. of paper or cardboard.

ADVANTAGE - The press assembly is compact, with a low vacuum and energy consumption, with a closed web guide path.

**DESCRIPTION OF DRAWING(S) - The drawing shows a schematic view of the press** rollers, using a double blanket.

fiber web 10

blankets 14,18,26

shoe press rollers 20,22,24

deflection roller 30

suction deflection roller 36

suction unit 66

gutters 72,74,76

blanket deflection rollers 96,97

heater 98

direction of web travel L

press gaps \$1,\$2

US 6406596B

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CHOSEN-DRAWING: Dwg.1/9